



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,081	06/23/2004	Bong Su Um	4906SK-6	5870
22442	7590	06/13/2007	EXAMINER	
SHERIDAN ROSS PC			KISWANTO, NICHOLAS	
1560 BROADWAY				
SUITE 1200			ART UNIT	PAPER NUMBER
DENVER, CO 80202			3609	
			MAIL DATE	DELIVERY MODE
			06/13/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/500,081

Applicant(s)

UM ET AL.

Examiner

Nicholas Kiswanto

Art Unit

3609

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 2/14/05, 7/7/2005, 1/12/2007.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 3 and 4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 3, line 4 the use of "and/or" in Claim 3 makes it unclear whether the invention claimed is one with an audio processing unit, or an image processing unit, or both.

Claim 4 depends on claim 3, therefore it is rejected based on its dependence on claim 3, which is rejected.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 3609

4. Claims 1, 2, 3, 4, 5, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knockeart, et al. (U.S. Patent #6,970,783) in view of Mathews, et al. (U.S. Patent #7,149,625).

As to claim 1, Knockeart shows a transceiver unit (col 14, line 43) for transmitting a signal demanding a detection of a navigation path, which is a short-cut path or an optimum path from a departure point to a destination (col 10, lines 44 - 48), to a path detecting server via a wireless network (col 10, lines 5 - 9) and then receiving path data (col 10, line 56) which represents the navigation path from the path detecting server via the wireless network. Further, Knockeart shows a display unit for outputting the navigation path (col 13, line 42), an input unit for inputting data (col 13, line 57), and an ECU (col 12, lines 57 - 65).

Knockeart does not show a navigation system precalculating deviation expected path data. Mathews shows a navigation system precalculating deviation expected path data (col 21, lines 17 - 21) and selecting revised path data (col 21, lines 60 - 62). It would have been obvious to one of ordinary skill in the art to modify the navigation system of Knockeart by precalculating deviation expected path data in order to expedite displaying of path data. Knockeart does not show a display unit for outputting the navigation path. However, it would have been obvious to one of ordinary skill in the art to modify the navigation system of Knockeart to display the revised path data in order to enable the user to understand the revised path data.

As to claim 2, Knockeart further shows a navigation sensor unit for detecting the present position of the mobile object (col 14, lines 30 - 32).

As to claim 3, Knockeart further shows the display unit including an audio processing unit (col 14, lines 9 - 13) and an image processing unit (col 13, line 42 - 45).

As to claim 4, Knockeart shows all of its elements in claim 1, 2, and 3 except where the ECU selects the revised path data among the deviation-expected path data by inspecting which of the deviation-expected paths includes the present position. Mathews shows a navigation system selecting the revised path data among the deviation-expected path data by inspecting which of the deviation-expected paths includes the present position (col 21, line 60 - 65). It would have been obvious to one of ordinary skill in the art to modify the navigation system of Knockeart by selecting the revised path data among the deviation-expected path data in order to provide revised path data without delaying for calculations.

As to claim 5, Knockeart shows all of its elements in claim 1, except deviation-expected path data stored in memory. Mathews shows a navigation system with deviation-expected path data stored in memory (col 21, line 60 - 63).

Art Unit: 3609

It would have been obvious to one of ordinary skill in the art to modify the navigation system of Knockeart by storing deviation-expected path data in memory in order to provide such data near instantaneously when requested for.

As to claim 6, Knockeart shows all of its elements in claim 1, except for deviation points calculated from arbitrary places where the mobile object begins to deviate from the navigation path. Mathews shows a navigation system with deviation points calculated from arbitrary places where the mobile object begins to deviate from the navigation path (col 21, line 30 - 33). It would have been obvious to one of ordinary skill in the art to modify the navigation system of Knockeart by calculating deviation points calculated from arbitrary places where the mobile object begins to deviate from the navigation path in order to effectively calculate deviation-expected path data.

5. Claims 7, 8, 9, 10, 11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mathews, et al. (#7,149,625) in view of Knockeart, et al. (#6,970,783).

As to claim 7, Mathews shows a method for navigating a mobile object traveling from a departure point to a destination, comprising the steps of: (a) transmitting a signal for demanding a detection of a navigation path, which is a short-cut path or an optimum path from the departure point to the destination, to

Art Unit: 3609

a path detecting server via a wireless network (col 23, line 1 - 3); (b) receiving path data which represent the navigation path from the path detecting server via the wireless network (col 23, line 18 - 19); (d) precalculating deviation-expected path data which represent deviation-expected paths (col 23, line 54 – 56); (e) selecting revised path data, which represent a revised navigation path, among the precalculated deviation-expected path data in case a present position of the mobile object deviates from the navigation path (col 23, line 59 - 62). Mathews does not show a method for displaying path data. Knockeart shows a method for (c) displaying path data (col 32, line 46). It would have been obvious to one of ordinary skill in the art to modify the navigation method of Mathews by displaying path data in order to enable the user to understand path data. Knockeart does not show a method for displaying revised path data. However, it would have been obvious to one of ordinary skill in the art to modify the navigation method of Mathews by (f) displaying revised path data in order to enable the user to understand revised path data.

As to claim 8, Mathews shows all its elements in claim 7 and a step detecting the present position of the mobile object (col 24, line 43), except for displaying path data. Knockeart shows a method for displaying path data (col 32, line 46). It would have been obvious to one of ordinary skill in the art to modify the navigation system of Mathews by displaying path data in order to enable the user to understand path data.

As to claim 9, Mathews shows all of its elements in claim 8 except for outputting the navigation path in the form of an audio signal or an image signal. Knockeart shows a method for outputting navigation path in the form of an audio signal (col 14, line 9 – 11) or and image signal (col 13, line 42 - 44). It would have been obvious to one of ordinary skill in the art to modify the navigation system of Mathews by outputting navigation path in the form of an audio signal or image signal in order to enable the user to understand path data.

As to claim 10, Mathews shows all of its elements in claim 9 and the revised path data selected among the deviation-expected path data by inspecting which of the deviation-expected paths includes the present position (col 23, lines 61 - 62), except for displaying path data. Knockeart shows a method for displaying path data (col 32, line 46). It would have been obvious to one of ordinary skill in the art to modify the navigation system of Mathews by displaying path data in order to enable the user to understand path data.

As to claim 11, Mathews shows all of its elements in claim 7 and storing path data (col 23, line 42) or the deviation-expected path data in memory (col 23, line 57 - 58), except for displaying path data. Knockeart shows a method for displaying path data (col 32, line 46). It would have been obvious to one of

Art Unit: 3609

ordinary skill in the art to modify the navigation system of Mathews by displaying path data in order to enable the user to understand path data.

As to claim 12, Mathews shows all of its elements in claim 7 and deviation points being arbitrary places where the mobile object begins to deviate from the navigation path (col 24, line 1 - 3), except for displaying path data. Knockeart shows a method for displaying path data (col 32, line 46). It would have been obvious to one of ordinary skill in the art to modify the navigation system of Mathews by displaying path data in order to enable the user to understand path data.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. PGPub 2002/0169549 A1 shows a navigation system providing backup guidance data in addition to dynamic data.

U.S. Patent 7,050,905 B2 shows a navigation system that delivers prestored route data at predetermined points in the route.

U.S. Patent 6,950,745 B2 shows a navigation system with a CPU that transfers data between a transceiver, a data output, and a user input.

U.S. Patent 6,351,709 B2 shows a navigation system that generates alternate route guidance in addition to primary route guidance.

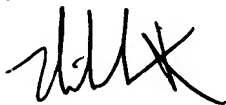
Art Unit: 3609

U.S. Patent 5,931,888 shows a navigation system that generates alternate route guidance in addition to primary route guidance.

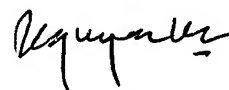
U.S. Patent 5,911,773 shows a navigation system storing guidance data in onboard memory.

Any inquiry concerning this communication should be directed to Nicholas Kiswanto at telephone number 571-720-3269. The examiner can normally be reached on Monday - Friday 8:00-5:00 (EST). If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven McAllister can be reached on 571-272-6785. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Nicholas Kiswanto
May 29, 2007



THU V. NGUYEN
PRIMARY EXAMINER